MEMORANDUM

TO: BDCP Steering Committee, via Karen Scarborough

FROM: BDCP Facilitation Team (Bruce DiGennaro, Wayne Spencer)

DATE: August 8, 2007

RE: Independent Science Advisory Workshop:
Principles and Guidelines for Conservation
September 12-14, 2007; Ryde Hotel, Walnut Grove

The first independent science advisory workshop is being planned for September 12-14, 2007 at the Ryde Hotel in Walnut Grove. Consistent with the NCCP science advisory process, the focus of the workshop will be on identifying principles and guidelines for conservation planning.

A list of confirmed advisors and a draft agenda for the workshop are attached (Attachments 1 and 2). A list of topic areas and issues to be addressed during the workshop is also attached (Attachment 3). These topic areas and issues reflect input received from Steering Committee members and will be used to guide and frame the workshop discussion.

We have structured the workshop agenda to begin with a Steering Committee session, open to the public, on the morning of September 12, 2007. During this time we will program presentations followed by an opportunity for comments from Steering Committee members and the public. Following the open comment period, advisors will participate in a field tour to provide them with additional context and background information. The balance of the workshop will be devoted to discussion amongst the advisors and preparation of written products as outlined in the draft agenda below. Results of the workshop will be summarized in a draft advisory memo or report to the Steering Committee for review and comment prior to being finalized for public release.

The Facilitation Team and Lead Science Advisor have recommended a series of four independent science advisory workshops during 2007 and 2008 to help guide the BDCP planning process. Additional workshops, beyond Workshop 1, will be planned and scheduled at the discretion of the Steering Committee. The precise timing and order of any additional workshops will be determined with input from the Steering Committee to ensure that the workshops are timed to take best advantage of available information (e.g., the timing of consultant documents) and to most efficiently inform the planning process through 2008.

ATTACHMENT 1
BDCP INDEPENDENT SCIENCE ADVISORS
WORKSHOP 1

Advisor	Affiliation	Expertise[1]	Additional Information
Dr. Jim Anderson	Univ. of Washington: School of Aquatic and Fishery Sciences	anadromous fisheries, ecosystem modeling	http://www.cbr.washington.edu/~jim/
Dr. Erica Fleishman	National Center for Ecological Analysis and Synthesis, U.C. Santa Barbara	conservation biology, terrestrial ecology, ecosystem modeling, ornithology	http://www.stanford.edu/group/CCB/Staff/fleishman.html
Dr. David Freyberg	Stanford; Civil and Environmental Engineering	hydrology delta operations	http://www-ce.stanford.edu/faculty/freyberg/
Dr. Wim Kimmerer	San Francisco State Univ.; Romberg Tiburon Center	pelagic fishes, aquatic ecology, aquatic foodwebs invasive species	http://rtc.sfsu.edu/in_kimmerer.htm
Dr. Denise Reed	Univ. New Orleans; Department of Geology and Geophysics	geomorphology: tidal wetlands restoration	http://ees.uno.edu/restoration/d_j_reed.htm
Dr. Kenny Rose	Louisiana State Univ.: Department of Oceanography & Coastal Sciences Coastal Fisheries Institute	pelagic fishes population modeling	http://www.sce.lsu.edu/faculty/rose.htm
Dr. Robert Spies	Applied Marine Sciences	ecotoxicology	http://www.amarine.com/corporate/staff/staff.html
Dr. Mark Stacey	U.C. Berkeley; Civil and Environmental Engineering	hydrodynamics	http://www.ce.berkeley.edu/faculty/faculty.php?name=Stacey
Dr. Susan Ustin	U.C. Davis; Land, Air, and Water Resources	landscape ecology, terrestrial ecology, invasive species	http://ecology.ucdavis.edu/faculty/detail_Faculty.aspx?id=127

[1] Categories recommended by BDCP Science Workgroup. Individual advisors may have additional areas of expertise beyond those listed.

ATTACHMENT 2
BDCP INDEPENDENT SCIENCE ADVISORY WORKSHOP
SEPETEMBER 12-14, 2007
RYDE HOTEL

DRAFT AGENDA

Purpose:

- Identify principles intended to form the scientific foundation for regional conservation planning under the NCCP Act
- Define the bounds within which the ecological and conservation goals and objectives of BDCP and NCCPA may be achieved
- Assess the knowledge base available for planning
- Identify the critical processes and scales of variability that the plan must embrace
- Identify any key uncertainties that must be considered in the planning process
- Assess the likely influence of external factors (e.g., climate change, other conservation plans) on conservation outcomes

Wednesday - September 12, 2007

1. **Orientation and Public Comments** **8:30 – 10:00**
   - *Introduce advisors.*
   - *Steering Committee provide background presentations followed by public comment period.*
   - *Entire session open to the public.*

2. **Field Trip** **10:00 – 1:00**
   Boat tour of the Delta – additional background on tour. Field lunch. Space limited.

3. **Working Session** **1:30 – 5:30**
   Advisor briefing on expected outcomes, questions, process and agenda. Example principles.
   Start identifying appropriate principles.
   re-assign background materials as needed.

4. **Group Dinner** **6:30**
   Open to Steering Committee members, but RSVP required

5. **Evening Homework**
   Individual re-review of initial principles and background materials.

Thursday - September 13, 2007 – Advisor Deliberations

1. **Review Knowledge Base for Planning** **8:00 – 10:00**
   - *Identify gaps*
   - *Prioritize according to critical processes*

2. **Limitations and Assumptions** **10:30 – 12:00**
   - *Identify key uncertainties*
   - *Review report outline*
   - *Preliminary assignments*

3. **Lunch** **12:00 – 12:30**

4. **Writing Session** **12:30 – 3:30**
   Advisors work independently or in cross disciplinary team drafting main points.

5. **Group Discussion** **3:30 – 5:30**
   - *Refine principles.*
   - *Consider other issues*
   - *Discuss assignments and general nature of comments.*

6. **Dinner and Evening Homework** **6:30**
   Continue writing assignments

Friday - September 14, 2007 – Final Deliberations

1. **Review Progress** **8:00 – 10:00**
   - *Review initial draft outline*
   - *Develop recommendations*
   - *Breakouts to refine recommendations and rationales*

2. **Review Recommendations** **10:30 – 12:00**
   - *Develop completion plan and assignments.*

3. **Adjourn - Lunch** **12:00 – 1:00**

ATTACHMENT 3
WORKSHOP TOPICS AND ISSUES TO BE DISCUSSED

The following major topics, and issues listed under each topic, are intended to help frame the advisors' discussions and not to rigidly dictate the scope of the discussions nor form the outline of the advisors' report. There is necessarily broad overlap and intertwining of issues amongst the major topic areas, and we have purposely structured the workshop to allow advisors to circle back to refine their input on particular topics or issues after moving on to other topic areas (in case discussion on a particular topic stimulates new thoughts on a topic already addressed).

Note also that the list of issues under each topic is not necessarily comprehensive. Additional issues are likely to arise before and during advisors' discussions and will be addressed as appropriate. We encourage Steering Committee members to continue submitting additional topics or issues to the Facilitation Team.

Conservation Principles

Charge: Formulate scientific principles for guiding ecosystem restoration and conservation of species and natural communities in the study area.

Issues to Consider:

a. The current, highly altered nature of the system
b. Invasive species
c. Flows and transport pathways
d. Water qualities
e. Future climate regimes
f. Physical and/or biological characteristics
g. Natural processes and self-sustaining outcomes
h. Ecological gradients (e.g., water depths, salinity, temperature regimes, substrate types)

Plan Scope

Charge: Identify natural communities, species, and processes that should be addressed to help achieve the plan's goals.

Issues to Consider:

a. The list of natural communities to be addressed by the plan
b. The list of species intended for coverage under state and federal take permits
c. Additional "planning" species, which may lack special protection status but may serve as useful indicators for other species, communities, or processes of interest
d. Effective ways of grouping species to assist in developing and assessing conservation strategies (e.g., species guilds, resident vs. anadromous species, species sharing limiting factors)
e. Physical and ecological processes to be addressed by the plan
f. The plan's geographic scope and how to address effects that extend beyond geographic boundaries
g. The temporal scope of the plan and how to address short vs. long-term effects

Knowledge Base for Planning

Charge: Review existing information and assess it's adequacy as a scientific foundation for conservation planning.

Issues to Consider:

a. Gaps in existing information that create uncertainties for planning, analyzing, managing, and monitoring
b. Additional data sources or literature to consult during planning and analysis
c. Methods for addressing data gaps and dealing with uncertainties
d. Physical or biological process models that might be useful (e.g., models of population dynamics, community dynamics, or nutrient or water flows)
e. Sufficiency of available data (including accuracy and precision) for use in models identified above

Critical Processes

Charge: Identify critical physical and ecological processes for restoring and conserving species and natural communities, and methods for assessing, conserving, restoring, and monitoring such processes.

Issues to Consider:

a. Historic ecological processes that maintained ecosystem and species viability
b. Current state of those processes
c. Future desired states for those processes
d. Methods for achieving future desired states
e. Examples of processes to address:
    - Nutrient flows
    - Water flows
    - Population dynamics
    - Disturbance cycles
    - Ecological migration
    - Exotic species invasions
    - Harvest
    - Population genetics
    - Climate change

External Factors

Charge: Identify external factors or processes, not under direct influence of BDCP participants, that might affect BDCP covered resources, and how can these externalitices be addressed by BDCP analyses and actions.

Issues to Consider:

a. Climate change (e.g., how might it affect this ecosystem and the target species, and how can these effects be addressed by the plan?)
b. Current and future land uses in the vicinity of the Bay Delta, or beyond plan boundaries, that may directly or indirectly affect the success of BDCP conservation strategies
c. Other existing or ongoing regional conservation plans in the vicinity of the Bay Delta.